Topic 15 – Myocardial hypoxia, reperfusion, stroke – D

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0034

Factors predictive of survival after out-of-hospital cardiac arrest

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Background: The incidence of acute coronary occlusion in the patients admitted to hospital after out-of-hospital cardiac is high. Several therapeutic elements such as early reperfusion developed in recent years to reduce the high morbidity and mortality observed in this situation. The objective of this study was to evaluate the prognostic factors of survival in a series of patients who underwent coronary angiography in the immediate after out-of-hospital cardiac arrest.

Methods: All patients admitted following an out-of-hospital cardiac arrest from January 2012 to June 2013 were included. The circumstances of the cardiac arrest, data taking pre-hospital care, clinical examination, laboratory parameters, results coronary angiography and the survival rate were investigated. Survival analyses were conducted using Kaplan-Meier estimates and multivariable Cox regression to search predictors of survival.

Results: 54 patients were successfully resuscitated, admitted to hospital and taken directly to the coronary angiography unit, the in-hospital survival rate was 48 %. According to multivariate analysis, the factors predictive of survival in general population were ventricular fibrillation or ventricular tachycardia as initial rhythm ($p<0.001$), troponin level <16mg /l ($p=0.055$) and the presence of a professional among bystander. In coronary patients, predictors of mortality were: troponin levels> 16mg / l ($p=0.02$), the presence of one bystander ($p=0.02$) and the absence of therapeutic hypothermia ($p=0.03$) and revascularization ($p=0.006$).

Conclusions: In this cohort study, the survival rate is influenced by factors related to the taking pre-hospital care. We found also that an immediate PCI improves the survival rate of these patients, independently of other usual prognostic factors.

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Thrombolysis of myocardial infarction with ST segment elevation: Moroccan experience of Military Hospital of Instruction Mohammed V

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Introduction: Management of STEMI is based on early myocardial revascularization alone guarantees a better prognosis of patents. The aim of our study was to evaluate the management of patients with STEMI undergoing intra-hospital thrombolysis in a center where the thrombolysis is made by cardiologist while the first contact with the patients is done by the emergency doctor.

Patients and Methods: Prospective study conducted over a period of 2 years including 55 patients with undergoing intra-hospital thrombolysis, clinical and therapeutic patient's data and the results of coronary angiography were collected and analyzed, our results were compared to those in the literature.

Results: The mean age of patients was 59.5 ± 13.69 years with a sex ratio M / F = 3, smoking and diabetes have been at the forefront of cardiovascular risk factors, 67% of patients arrived to the hospital on their own, and 33% by ambulance. The average time of presentation of patients to the emergency room from the beginning of the pain was 3.2h [45 min-8h], the average arrival to the emergency / thrombolysis was 40 minutes [10- 90 min]. Coronary angiography was performed within an average of 25H [2-75 H] after thrombolysis. Success judged on clinical and electrical criteria was achieved in 75% of cases, 15% of patients had clinical succees with the coronary flow TIMI less than 2. 52% of patients had single-vessel lesion, 27% double-vessel and 21% tri-vessel or left main artery disease. Rescue angioplasty was performed in 18% of patients. The total number of stent used was 72 (1.3 stent / patient. 11% of patients underwent surgery, and 2 patients died during the hospitalization.

Conclusion: The management of STEMI in our climate still suffers from a delay attributable to patient consultation delay but also a significant delay between first medical contact and pharmacological revascularization, all public health policy efforts should be deployed to reduce this delay which affects the prognosis of patients.

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Admission choleterol and triglycerid levels in acute myocardial infarction: a series of 98 patients in the University Hospital of Casablanca

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High blood cholesterol (HBC) and Triglyceride (HBT) are metabolic risk markers which should be measured at admission of patients with acute myocardial infarction (AMI). However, only few data have examined the predictive performance of these tests in our center. Our purpose was to determine the additional prognostic information of HBG and/or HBT in AMI.

Methods: The study enrolled 98 patients (63 males and 35 females aged 59.9 ± 1.12 years) diagnosed with AMI. Unfortunately 14 patients' lipid data were lost.

We analyzed 2 groups of patients:

- Group1 (n=28) defined by admission lipid abnormalities (TC>2g/L, HDL cholesterol>0.65, LDL cholesterol>1.8 or TG>2g/l).
- Group 2 (n=56) defined by normal values of lipid parameters.

We collected lipid profiles as well as serum glucose values at day 1 and 4 from the MI onset. We compared their cardiovascular risk factors (CVRF), left ventricle ejection fraction (LVEF) assessed <3 days after admission, CRP, troponines and intra-hospital and 1 year mortality.

Results: Compared with the group2, the group's 1 patients tended to have younger age (57.8 vs. 61 years), more often hypertension (54% vs. 41%), more diabetic (50% vs. 37.5%), more dyslipidemia (14.28% vs. 1.25%) but less chronic smoking (35.7% vs. 60.7%).

LVEF was not significantly different in the tow groups.

Troponines (50.9 vs. 17.82 ng/ml) and CRP (81.3 vs. 45 mg/l) were higher in group1. Lipid tended to decrease on results measured 4 days after the acute phase.

No difference noted in intra-hospital mortality (7.14%) but at 1 year 13% died in group1 vs. 0% in group2.

Conclusion: In this cohort, lipid levels decreased during the first days of admission. We found differences in cardiovascular risk factors, troponine and CRP values as well as 1 year mortality from patients with lipid abnormalities at admission to those without. We think, and also in accession to guidelines, lipid should be measured as soon as possible after admission to well evaluate patients.